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There is no known record of mineral production, development, or prospecting within the study area, although a fairly large number of holes have been drilled in the area. The only hole that has been drilled for iron ore has been made in Township 34 N., Range 2 W., within a private property adjacent into the study area.

The bismuth-type lead-zinc-silver deposits are found in the lowest carbonate formation (Bannette Formation) of a thick section of Cambrian sediments that rests unconformably on an irregular Precambrian basement surface. The section has been subjected to episodes of uplift and subsidence, but it has been only slightly tilted in the study area. Areas in which basement elevations were above the lamotte pinch-out and provided a base for deposition of the Bannette Formation are more extensive than those favorable for bismuth-type deposits. The fault zone

Interpretation of magnetics is significant even though data points are sparse. Four elevation points on the southwest border of the study area indicate that the underlying basement there has an elevation of approximately 1,600 ft (490 m) below sea level. This elevation might be considered "normal" for the region, and a significant thickness of both the lamite and Bonnetville Formation would be expected.

In a qualitative sense, the results of the geophysical sounding suggest that depths to the basement are approximately 350 ft (110 m) below sea level, in this case having an average elevation of approximately 350 ft (110 m) below sea level.

The depth interpretations in total indicate a pronounced relief of anomalous magnitude within the study area. Pinch-outs of the Lamotte Sandstone appear clearly within the area along lines projected northward and eastward from the southwest border.

The aeromagnetic interpretations support the conclusion that certain basic geologic conditions were favorable to the occurrence of Vismunium-type deposits present within the study area.

Pedimentary estimates place the potential host rocks at a depth between 1,500 and 2,000 ft (460 and 610 m). Because of the nearly 2,000-ft depth, the use of geophysical methods was not believed feasible for direct detection of Vismunium-type deposits.

Indirectly, geophysical procedures provided an indication of the presence of the host rocks. The magnetic susceptibility of the host rocks was considered unfavorable or precluded the use of geophysical methods for the study area. Conditions for these deposits exist in the study area.

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